

REMARKS

Applicants wish to thank the Examiner for the telephonic interview held on Thursday, November 29, 2007 in order to further the prosecution for the RCE to filed herewith.

Claims 22-24 are currently pending.

These claims have been amended to recite food comprising a "soy protein" instead of food. Support for this can be found in the specification on page 2 at lines 22-26 and on page 3 at line 2 of the specification. Thus, it is believed that no new matter has been added.

Additional amendments to claim 24 are discussed below.

The specification was objected to on the ground that all the labels in Figures 5 and 7 were not referred to in the brief description. Attention is kindly invited to 37 CFR §1.74 and MPEP Section 608.01(f). 37 CFR §1.74 states that "When there are drawings, there shall be a brief description of the several views of the drawings and the detailed description of the invention shall refer to the different views by specifying the numbers of the figures, and to the different parts by use of reference letters or ('399) which issued on March 26, 2002. The brief description of Figures 5 and 7 in the '399 patent is the same as that set forth in the above-identified application. It is respectfully submitted that no correction is needed as this description has already been found to satisfy 37 CFR §1.74 with respect to the brief description of the drawings.

Claim 24 has been amended to clarify that a soybean plant is transformed at a single locus in its genome with a chimeric gene which comprises at least a portion of a glycinin or a beta conglycinin gene wherein transformation results in a reduction of the amount of at least one soybean seed storage protein, selected from the group consisting of glycinin and beta-conglycinin, in seed obtained from said transformed plant when compared to the amount of soybean seed storage protein in seed obtained from a non-transformed plant. Support for this amendment can be found in Example 2 and further data relating to Example 2 is set forth in the declaration of Dr. Anthony Kinney, one of the co-inventors of the subject application, that was previously submitted in connection with Application No. 09/108,010 now U.S. Patent No. 6,362,399. Thus, it is believed that no new matter has been added.

Claims 22-24 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 6-9, 12 and 14-20 of U.S.

Patent No. 6,703,544 ('544) for the reasons of record stated in the Office Action mailed on January 10, 2007. The basis for this ground of rejection is set forth, *inter alia*, on page 4 of the Office Action, specifically, the "claims of instant divisional application have been changed in material from the claims at the time restriction was made in the parent application. . . ."

The following is provided and was discussed during the November 29, 2007 telephonic interview.

The instant application is a divisional application of Application No. 09/758,652 now U.S. Patent No. 6,703,544. A restriction requirement was issued in connection with the '652 application in a paper dated June 11, 2002. A copy is enclosed for the Examiner's convenience. Six groups were identified in the restriction. Attention is kindly invited to page 3 of that Office Action which identifies Group VI, claim 32, as being drawn to food. This claim recited food prepared from soybean seeds prepared by the method of a decreased soybean storage protein.

The claims pending in the instant application pertain to subject matter of Group VI that was restricted out of the '652 application. Accordingly, the currently pending claims are commensurate in scope with the claims present in the '652 application. In view of this, it is respectfully submitted that the claims have **NOT** been materially changed from those pending in 'the 652 application.

It is noted with appreciation that this ground of rejection has been withdrawn in view of the aforementioned telephonic interview and is stated in the Interview Summary sheet dated November 29, 2007.

Claims 22-24 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 6,362,399. The following is provided and was discussed during the November 29, 2007 telephonic interview.

It is respectfully submitted that the foregoing discussion is equally apposite with respect to this ground of rejection since the parent application for the instant case is the '652 application discussed above. The '652 application was a divisional of the application (09/108,010) that served as the basis for U.S. Patent No. 6,362,399. Application No. 09/108,010 is the grandparent of the instant application and the '652 application is the parent.

It is noted with appreciation that this ground of rejection has been withdrawn in view of the aforementioned telephonic interview and is stated in the Interview Summary sheet dated November 29, 2007.

Claim 24 has been rejected under 35 USC §112, second paragraph, as being indefinite in the recitation of "sufficient in length" which has been deemed confusing since the metes and bound are allegedly unclear as not being defined.

It is respectfully submitted that this ground of rejection has been obviated in view of the amendments to Claim 24.

In view of the foregoing, withdrawal of the rejection of Claim 24 under 35 USC §112, second paragraph, as being indefinite is respectfully requested.

Claims 22-24 stand rejected under 35 USC 112, first paragraph, on the ground that the specification is not enabling for "reducing the levels of (a) soybean glycinin or beta-conglycinin seed storage proteins (b) *any* soybean seed storage protein, comprising transformation of soybean seed with chimeric gene which comprises a nucleic acid fragment derived from any soybean seed storage protein coding region"

Attention is kindly invited to the copies of the declarations of Dr. Kinney and Dr. Fader which demonstrate that

As was noted above, claim 24 has been amended to clarify that a soybean plant is transformed at a single locus in its genome with a chimeric gene which comprises at least a portion of a glycinin or a beta conglycinin gene wherein transformation results in a reduction of the amount of at least one soybean seed storage protein, selected from the group consisting of glycinin and beta-conglycinin, in seed obtained from said transformed plant when compared to the amount of soybean seed storage protein in seed obtained from a non-transformed plant. Support for this amendment can be found in Example 2 and further data relating to Example 2 is set forth in the declaration of Dr. Anthony Kinney, one of the co-inventors of the subject application.

A copy of Dr. Kinney's Declaration dated June 29, 2001 accompanies this Response.

It is respectfully submitted that the specification would enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with the revised claims.

Examples 1 through 3 of the specification use chimeric genes expressing a **truncated alpha subunit of β -conglycinin** in sense orientation with respect to a promoter, or the **β -conglycinin promoter** directing the expression of the FAD2 coding region in sense orientation, or the entire alpha subunit of the beta-conglycinin in sense orientation with respect to the beta-conglycinin promoter to suppress **both** α and α' subunits, and some times **all the subunits comprising β -conglycinin**. These results are summarized on Table 1 (pages 19-20), page 20 at lines 10-17, and page 24 at lines 14-20. It is stated in the enclosed declaration that **both** glycinin subunits are suppressed when a chimera containing truncated fragments from two types of glycinin subunits are expressed under the direction of the KTi promoter.

Submitted herewith is a copy of the declaration of Dr. Gary M. Fader, one of the co-inventors of the subject application. The original declaration dated June 27, 2001 was submitted in connection with the prosecution of Application No. 09/108,010 now U.S. Patent No. 6,362,399. Dr. Fader's declaration shows that all the glycinin subunits were suppressed when truncated forms of the G1 and G4 subunits were expressed in a sense orientation under the control of a KTi promoter. Thus, Dr. Fader's declaration provides additional data for the embodiment's described in the specification.

The discussion in the specification, the results presented in Figures 5 and 7, and the results shown in the enclosed copies of the declaration demonstrate a reduction in seed storage protein levels (β -conglycinin or glycinin) relative to a control. In view of the above discussion and Dr. Fader's declaration, withdrawal of the rejection of the claims under 35 USC §112, first paragraph, is respectfully requested.

Parenthetically, it should be noted that the Claims 22 and 23 now recite food comprising soy protein obtained from soybean seeds prepared by the methods that constitute the subject matter of the claims in U.S. Patent No. 6,703,544 issued on March 9, 2004 to Fader et al.

Claims 22-23 remain rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement.

Applicants are well aware that enablement and written description rejections are distinct. It noted that the enablement and written description rejections were separately addressed in the previously submitted Response filed on May 10, 2007.

Thus, Applicants respectfully submit that the above-discussion with respect to the enablement rejection is equally apposite with respect to the rejection of Claims

22-23 under 35 USC §112, first paragraph, as failing to comply with the written description requirement. It is respectfully submitted that the written description has been satisfied in view of the foregoing claim amendments, discussion and copies of the previously submitted Declarations.

Withdrawal of the rejection of Claims 22-23 under 35 USC §112, first paragraph, is respectfully requested.

It is respectfully submitted that the rejection of Claim 24 under 35 USC §112, first paragraph, as failing to comply with the written description requirement, has been obviated in view of the amendment to Claim 24 and the foregoing discussion.

Claims 22-24 remain rejected under 35 USC §102 (b) as anticipated by or, in the alternative, under 35 USC §103(a) as obvious over Trueblood et al. (U.S. Patent No. 4,267,118) for the reasons of record stated in the Office Action mailed on January 10, 2007.

Trueblood et al. teaches a process for making food grade soybean oil. which despite application of different methods, appears to be identical to a food (soybean oil) obtained from the seeds of the invention.

It is respectfully submitted that this ground of rejection has been obviated in view of the above claim amendments where the term “food” has been replaced by “soy protein product”

Attention is kindly invited to page 2 at lines 22-24 of the instant specification, where it is stated that :

New soy based products such as protein concentrates, isolates, and textured protein products are increasingly utilized in countries that do not necessarily accept traditional oriental soy based foods.

Accordingly, food comprising a “soy protein” which now constitutes the subject matter of the instant invention is directed to protein concentrates, isolates, and textured protein products, not soybean oil obtained from seeds containing reduced levels of soybean seeds storage proteins. It is also stated on page 1 of the specification at lines 17-20 that soy “protein or protein isolates are already used extensively for food products in different parts of the world. Much effort has been devoted to improving the quantity and quality of storage proteins in soybean seeds.”

This is why the instant invention is directed toward altering the seed storage profile of seeds obtained from transgenic soybean plants.

Withdrawal of this ground of rejection is respectfully requested in view of the foregoing discussion.

Copies of the restriction requirement dated June 11, 2002 and issued in connection with the '652 application, Dr. Kinney's June 29, 2001 and Dr. Fader's June 27, 2001 declaration accompany this Response.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Please charge any fees or credit any overpayment of fees that are required in connection with the filing of this Preliminary Amendment and Information Disclosure Statement to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,

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